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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,542	11/07/2003	Jung Su Lee	P24436	8210
7055	7590	10/06/2005	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C.			BROWN, DREW J	
1950 ROLAND CLARKE PLACE			ART UNIT	
RESTON, VA 20191			PAPER NUMBER	

3616

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/702,542

Applicant(s)

LEE, JUNG SU

Examiner

Drew J. Brown

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/2/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

CLW

DETAILED ACTION

Information Disclosure Statement

1. The foreign patent with serial number JP 2002-127798 was not considered because it does not correspond to the correct application. It appears that the document is for application 10/702,452 rather than application 10/702,542.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the large number of gas-discharging holes in the upper and lower panels in claim 8 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The abstract of the disclosure is objected to because “form” should be “from” in line 7. Correction is required. See MPEP § 608.01(b).

Claim Objections

4. Claim 1 is objected to because of the following informalities: The word “form” should be “from” in line 8. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art disclosed in applicant’s specification (Figs. 1-3) in view of Varcus et al. (U.S. Pat. No. 6,361,067 B1).

With respect to claim 1, Figure 2 of the prior art discloses a passenger air bag system for vehicles comprising an airbag housing mounted to an instrument panel at the front part thereof, an inflator (6) mounted in the air bag housing for discharging gas when a collision of the vehicle occurs, a cushion (8) accommodated in the air bag housing such that the cushion is expanded to the front of a passenger seated in a passenger seat by means of the gas discharged from the inflator, and a retainer (10) attached to the air bag housing for supporting the cushion.

The prior art does not disclose a diffuser bag fixed to an inlet part of the cushion having openings for changing the flow direction of the gas. However, Varcus et al. does disclose a diffuser bag (38) fixed to and communicating with an inlet part (34) of the cushion, where the diffuser bag has openings (46) formed at both sides thereof for changing the flow direction of the gas introduced into the cushion.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a diffuser bag with openings at both sides to change the flow of direction of the gas into the cushion so the cushion is filled as desired. In other words, the location, size, and quantity of the openings can be varied to fill the cushion with an even distribution at a desired rate.

With respect to claim 2, Varcus et al. also discloses that the diffuser bag comprises a main body (40 and 42) formed in the shape of a pocket for receiving gas, an inlet part formed at the main body while the inlet part (36) of the diffuser bag communicates with the inlet part (34) of the cushion, and a gas-discharging opening (48) formed at one side of the main body for discharging gas received in the main body in a prescribed direction.

With respect to claim 3, the main body of the diffuser bag comprises an upper panel 42 forming the upper part of the main body, and a lower panel (40) attached to the lower side of the upper panel by means of sewing (column 3, lines 2-9) for defining a chamber therein together with the upper panel.

With respect to claim 4, the lower panel and upper panel are sewn to each other at their outer edges (Fig. 2).

With respect to claim 5, the upper and lower panels are made of a fibrous material (column 3, line 2).

With respect to claim 6, the main body of the diffuser bag has a gas-discharging hole (48) for allowing gas introduced into the main body through the inlet part of the diffuser bag to be discharged to the cushion therethrough.

7. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art disclosed in applicant's specification (Figs. 1-3) in view of Varcus et al., and further in view of Taguchi et al. (U.S. Pat. No. 5,951,038).

The combination of the prior art of the present invention and Varcus et al. discloses the claimed invention as discussed above but does not disclose that the upper and lower panels each have a hole formed therein that correspond to each other. However, Taguchi et al. does disclose that the upper and lower panels have corresponding gas-discharging holes (22a) formed therein (Fig. 10a).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have gas-discharging holes in the upper and lower panels in order to diffuse gas in all possible directions instead of only diffusing it in a horizontal plane. By diffusing it vertically as well, the cushion will expand uniformly to provide optimum protection for the occupant.

With respect to claims 8, Taguchi et al. also discloses that the discharging holes are formed in large numbers at the upper and the lower panel (column 5, lines 15-19).

With respect to claims 9 and 10, the combination of the prior art and Varcus et al. discloses that the inlet part of the diffuser bag is defined between one end of the upper panel

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attached to the upper side of the inlet part of the cushion (connection of panel 42 and inlet 34), and one end of the lower panel is attached to the lower side of the inlet part of the cushion (connection of panel 40 and inlet 34). Also, the upper and lower panels are separated from each other at both sides of the upper and lower panels adjacent to one end of the main body of the diffuser bag (Fig. 2).

8. Claims 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art disclosed in applicant's specification (Figs. 1-3) in view of Varcus et al., Taguchi et al. (U.S. Pat. No. 5,951,038), and Taguchi et al. (U.S. Pat. No. 5,913,535).

The combination of the prior art of the present invention, Varcus et al., and Taguchi et al. (U.S. Pat. No. 5,951,038) discloses the claimed invention as discussed above but does not disclose that the ends of the upper panel and the lower panel are attached to the inlet part of the cushion by means of sewing. However, Taguchi et al. (U.S. Pat. No. 5,913,535) does disclose that the ends of the upper and lower panels are attached to the inlet part of the cushion by sewing (column 4, lines 61-63).

With respect to claims 12-13, the combination of the prior art and Varcus et al. discloses that the gas-discharging opening is formed at the main body of the diffuser bag for discharging gas in a direction opposite to the direction of eccentric expansion of the cushion by means of the gas (arrows corresponding to openings 48). This opening is formed by cutting the sewn outer edges of the upper and lower panels (Fig. 2).

With respect to claims 14-16, the main body of the diffuser bag is provided with a pressure-releasing opening (46) for preventing increase of the pressure inside the main body above a prescribed limit. Although Varcus et al. does not specifically recite that the intended use

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of the opening is to release pressure, it is obvious that the openings will prevent increase of pressure inside the main body above a prescribed limit. This pressure-releasing opening is formed at the edge of the main body of the diffuser bag by not sewing the upper panel and the lower panel (Fig. 2).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Igawa (U.S. Pat. No. 6,382,662 B1), Wolanin et al. (U.S. Pat. No. 5,246,250), Nelsen et al. (U.S. Pat. No. 6,283,499 B1), and Pinsenschaum et al. (U.S. Pat. No. 6,585,290 B2) all disclose similar passenger airbag systems with diffuser bags.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew J. Brown whose telephone number is 571-272-1362. The examiner can normally be reached on Monday-Thursday from 7 a.m. to 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Drew J Brown

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Examiner
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DJB

 10/3/05

PAUL N. DICKSON
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